The King's Fund

Bold thinking for better health

Approaches to vaccine delivery

Learning from Gloucestershire ICB's Covid-19 vaccine programme

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Section 1: Context

Rates of vaccination – one of the most effective public health interventions – are declining in the UK.

During the pandemic, Covid-19 vaccination rates in Gloucestershire were among some of the highest in the country. Since the pandemic, they have been rated as the integrated care board (ICB) with the highest uptake rates for adult vaccines.

The King's Fund evaluated the programme to see how well the ICB achieved these high uptake rates, despite facing challenges including a mix of rural and urban communities, health inequalities, and an older population.

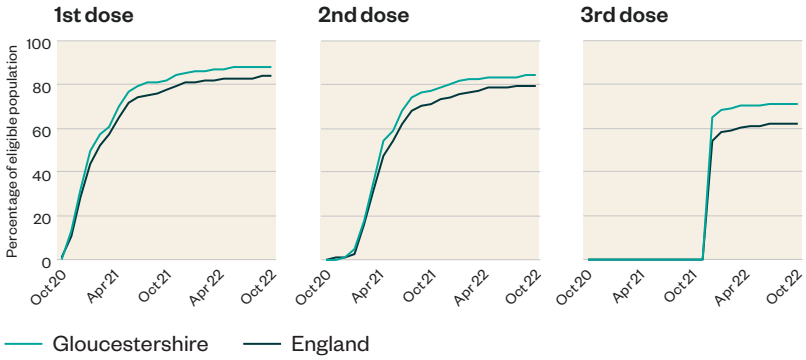
Covid vaccination rates in Gloucestershire were among some of the highest in the country. We wanted to find out why.

Vaccines are one of the most effective public health interventions, second only to clean water as the most effective way to prevent disease. Yet, rates of vaccination are declining in the UK.

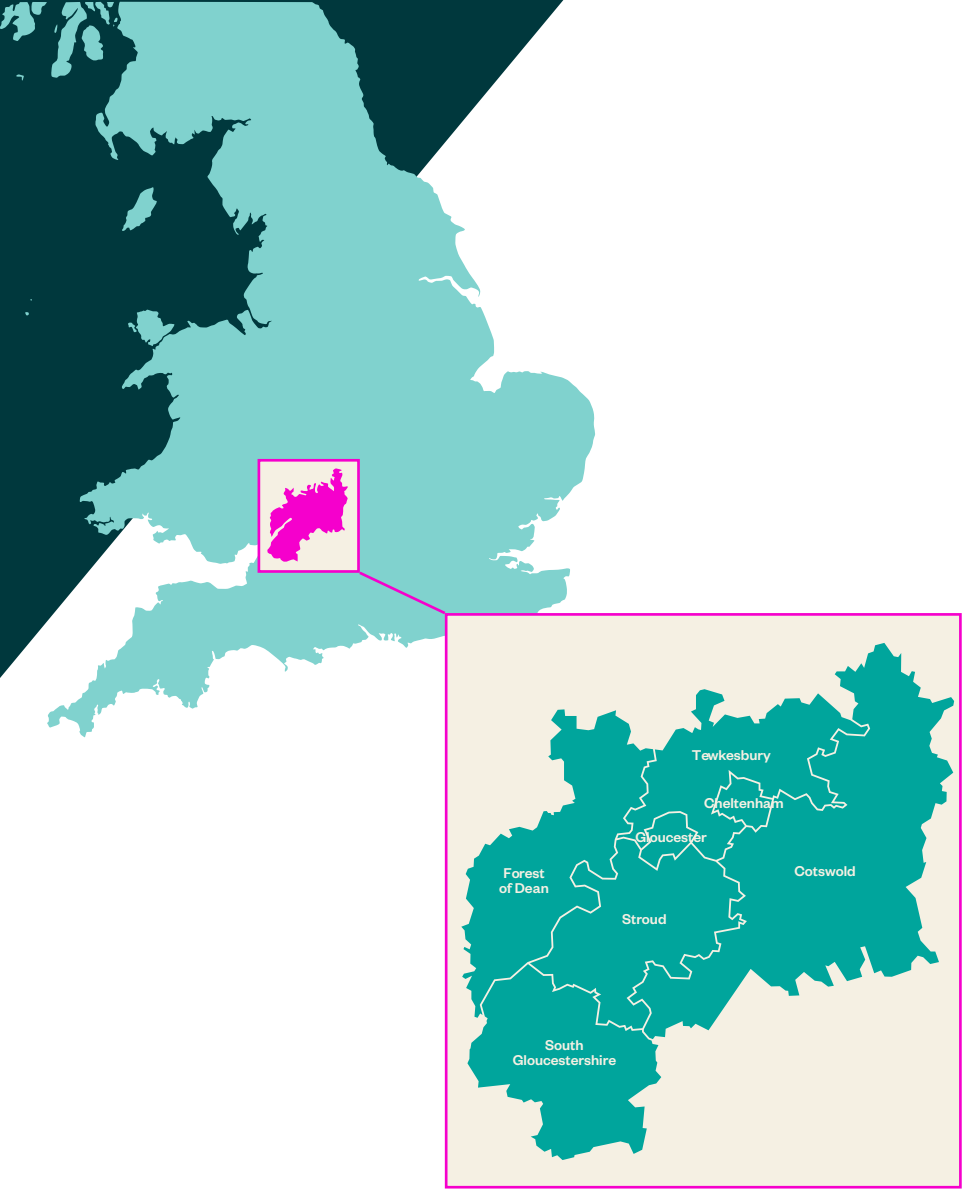
Before the Covid-19 pandemic, Gloucestershire's vaccine uptake rates for illnesses such as flu were generally in line with the national average. However, during the pandemic, Gloucestershire stood out. Its Covid vaccine uptake rates were consistently higher than the national average, even after adjusting for age and ethnicity. Since the pandemic, they have been rated as the integrated care board (ICB) with some of the highest uptake rates for adult vaccines .

Our aim was to better understand what led to this success, what the team learnt to inform their wider vaccination programme, and what other systems might learn from Gloucestershire's approach. What enabled Gloucestershire's success, and what challenges stood in the way?

Gloucestershire consistently had a higher Covid-19 vaccination rate compared with England overall
Covid-19 vaccination rates for Gloucestershire ICB and England



Source: NHS England
Vaccination rate calculated using ONS 2020 population estimates



Gloucestershire presents a varied health picture, with older, more rural and mixed diversity and deprivation levels.

Understanding Gloucestershire

Gloucestershire, home to around 700,000 people, is a large county in the Southwest of England, where about 30% of its population live in rural areas.

- The footprint the integrated care board (ICB) is aligned with the county council boundary.
- Gloucestershire presents a varied health picture:
  - While areas such as the Cotswolds are among the most affluent in the country, parts of Gloucestershire, for example parts of Gloucester, Cheltenham and the Forest of Dean, rank within the 10% most deprived areas nationally.
  - Overall, Gloucestershire is less ethnically diverse than the national average, with around 12.3% of the population identifying as belonging to ethnic minority groups (compared with 26.5% national average), but areas such as Gloucester and Cheltenham have high ethnic diversity.
  - Gloucestershire has an older population than England overall, with more people aged 65+ and fewer under 65. However, this varies locally: Gloucester and Cheltenham have more under-65s, while areas such as the Cotswolds, Forest of Dean, Stroud, and Tewkesbury have more over-65s.

How did we go about this research?

NHS Gloucestershire Integrated Care Board (ICB), with support from NHS England, commissioned The King's Fund to undertake this work.

To get a complete picture of Gloucestershire's approach and to understand what contributed to its success, we undertook several different research activities:

- **A literature review** (analysed 61 sources) to understand 'what works' to increase vaccine uptake
- **Analysis of local and national vaccine uptake data** to identify trends to enable us to contextualise the main qualitative findings.
- **Qualitative data collection and analysis:** 26 in-depth interviews with stakeholders involved in Gloucestershire's vaccine programme, including representatives from primary care, the ICB, regional and national NHS levels, pharmacists, and the voluntary, community and social enterprise (VCSE) sector. Interviews explored Gloucestershire's delivery model, the enabling factors, implementation barriers, and perceptions of the vaccine programme's success factors.

Section 2: Why did Gloucestershire do well?

Vaccines delivered locally through GP-led networks and familiar community venues, instead of mass-vaccination centres, made access easier, more trusted and more convenient.

Real-time data helped spot gaps in uptake and guide outreach.

Tailored outreach services, such as pop-up clinics and mobile 'jab vans', along with targeted support and messaging, helped to reach more hesitant groups.

Strong relationships across health teams and community organisations enabled quick and innovative collaboration.

Flexibility and learning from what worked helped adapt delivery based on patient feedback and sharing knowledge across teams.

What approach did Gloucestershire take to vaccination during the pandemic?

Gloucestershire faced the logistical challenges of rurality, a mainly dispersed population, and no suitable mass-vaccination venue. As a result, the ICB took a highly localised approach to its Covid-19 vaccine programme.

Unlike most other areas in the country, which had mass-vaccination centres, in Gloucestershire, vaccines were delivered through a network of community-based sites, including fire stations, village halls and pharmacies.

The programme was led by the ICB, and supported and delivered mainly by the 11 primary care networks (PCNs) across the ICB (PCNs are groups of local GP practices who work together to provide services to their local communities). The PCNs worked closely with an acute hospital trust, pharmacies and a dedicated outreach team.

'[There was a] great relationship with the ICB, and the system with the sites. I think that made it quite a reactive system. We were able to upscale and downscale really quickly because we weren't manoeuvring a massive ship. It was lots of small ships and actually you couldmake one ship bigger and the other ship smaller. It wasn't some crazy, massive organisation.'

Unlike most other areas in the country, which had mass-vaccination centres, in Gloucestershire, vaccines were delivered through a network of community-based sites.

The local flexible model improved accessibility and uptake

Gloucestershire's PCN-led model brought vaccinations closer to home, and meant people could get their vaccination within their local area rather than having to travel further away to a large vaccination centre.

PCNs delivered vaccines in places people knew and felt comfortable in – local GP practices or other familiar community venues such as village halls or the fire station. Rather than having to travel to potentially unfamiliar large vaccination venues, patients were often invited by their own GP practices, and staff administering the vaccines were often known or familiar to patients. This familiarity helped reduce anxiety and build trust, especially among those who were more hesitant or vulnerable to infection (for example, those who were older or immunocompromised).

This localised model meant that each PCN could tailor its approach to its specific population needs. In areas with more diverse populations and communities who were more hesitant to get vaccinated, teams took extra time to explain the process, used interpreters, and created welcoming environments. Their approach was based on the idea that a one-size-fits-all approach doesn't work. Tailoring by geography, culture and community is essential.

> *'It was very local based [and] people didn't feel they were going out of their comfort zone for travelling or going into a strange city or a strange town where they didn't know what the layout was... It's all those things about getting people comfortable and confident to travel, and particularly in the time when you didn't want to travel.'*

Gloucestershire's PCN-led model brought vaccinations closer to home, and meant people could get their vaccination within their local area

Using data to target outreach efforts helped reach different communities and increase uptake rates

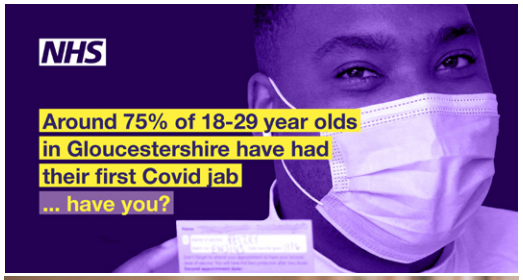
Part of what made Gloucestershire's approach so successful was combining its general localised approach to vaccine delivery with targeted outreach efforts.

Gloucestershire's outreach was designed to meet diverse needs across Gloucestershire. From early on in the vaccine programme, a vaccine equity group was established by the local authority public health team who worked with the ICB and drew on real-time data to identify gaps in uptake and guide outreach. This group used population health and vaccine uptake data to guide decisions about where to target specific interventions in a structured way, rather than just trial and error.

Unlike many areas, Gloucestershire maintained a system-wide outreach service through its ICB. The ICB took a relational, trust-building approach to outreach, where staff had dedicated time to listen, build relationships, and get to know different communities before offering vaccinations. This consistent presence and respectful approach helped overcome misinformation, cultural barriers, and hesitancy by providing people with the space and time to ask questions and learn about vaccinations before being offered them. It wasn't just about providing access: it was also about building trust.

> *'Gloucestershire were very good at using their data.. to see where [they had] low uptake, so they were using their data to inform their decisions and they were sharing that with their PCNs quite early on which was quite good. And then because they had their PCNs in their communities, they were able to get into those communities quite quickly.'*

Gloucestershire combined local delivery with targeted, data-driven outreach



What did this outreach look like?

Pop-up clinics	Gloucestershire ICB was one of the first in the country to set up pop-up clinics in trusted, familiar places – food banks, farmers markets and mental health services, and at religious events such as Eid.
Trusted community collaborations	The ICB worked closely with trusted community leaders (eg, imams) and community organisations (like the Friendship Café in Gloucester), drawing on their local knowledge to understand barriers to vaccinations in populations where they needed to tailor interventions.
Reaching digitally excluded groups	Vaccine centres and outreach teams made sure to call those who were digitally excluded or less digitally literate rather than relying on digital invites, and even hand-delivered appointment letters to reach people who might otherwise be missed.
A 'jab van'	The ICB set up a mobile 'jab van' to reach those in rural communities or those less able to access services.
Increasing accessibility	Late-night and weekend options at vaccine clinics and walk-in clinics were offered at venues such as fire stations, as well as drive-through appointments designed for those who could not easily walk into a centre or preferred to stay in their vehicle to reduce exposure.
Tailoring messaging	Messaging was translated into multiple languages and shared in different formats and on different platforms to suit different groups, for example WhatsApp groups, local radio (such as Gloucester FM) and trusted voices such as faith leaders and community champions.

An agile, flexible learning culture with real-time feedback helped respond to the challenges of the pandemic

The pandemic was fast-moving, highly intense, and presented many challenges. Rapidly changing guidance and regulation, needing to set up vaccine centres from scratch, vaccine supply issues and IT system limitations were just some of the barriers faced across the country.

Gloucestershire ICB and the PCNs overcame the specific challenges of the pandemic through innovation, adaptability and an iterative approach.

'I think the ICB are strong, they want to be the best, they want to do it in an innovative way. They're not afraid of going a different direction to everybody else and that makes Gloucestershire a really great place to work. And I really don't want them to lose that with the cluster.'

Gloucestershire was flexible, agile, andcontinually improved its approach

Site set up	Staff from the first vaccine site to be established were deployed to support new ones, helping to overcome early challenges and ensure smoother setups.
Quality assurance	Before national guidelines were available, Gloucestershire ICB created its own quality assurance checklist to ensure sites met high safety and quality standards.
Patient experience	Gloucestershire collected patient feedback through QR codes in waiting areas of their vaccine centres. Feedback was acted on so that patients would be more likely to come back and to recommend others.
Vaccine distribution	Having the ability to share vaccines between vaccine centres helped Gloucestershire ICB keep on top of vaccine supply needs. Transporting such an unstable vaccine was challenging, but Gloucestershire ICB established a group who were available to transport vaccine around, and who would be on call to deliver it where it was needed.
Volunteer engagement	Gloucestershire's approach to working with volunteers was different to many other areas. unlike many areas, Gloucestershire's ICB formally recruited and integrated volunteers into the programme, showing that they valued volunteers

Gloucestershire's local flexible model was enabled by the people working in the system

Gloucestershire's generally low staff turnover across the system meant that staff built up strong working relationships over the years before delivery began.

The ICB has also historically worked closely with GPs, which helped delivery through the PCNs to run smoothly.

Compared with other areas, Gloucestershire had spent longer working in a PCN-type model, so foundations of this way of collaborating may have already been in place.

There was a culture of appreciation, where people felt valued for their contributions

Staff went above and beyond to deliver vaccines

Teams worked together successfully during the vaccine rollout because they were united by a strong sense of purpose and pride, and driven by the sense of urgency of delivery needs.

Staff across Gloucestershire were motivated by a sense of friendly competition with other areas and systems nationally, which helped drive their commitment to maintaining high uptake rates across the county. The fast-paced nature of the response created momentum, enabling quick decision-making and action, strengthening the tight-knit working culture across the system.

We heard that throughout the vaccine programme, there was a culture of appreciation, where people felt valued for their contributions and where success was celebrated.

Staff tended to have good relationships with each other What impact did these relationships have on delivery?

Longstanding relationships and trust between colleagues	Trusted relationships enabled rapid collaboration and enabled colleagues to feel more comfortable testing new ideas and approaches.
Trusted leadership	ICB leadership was trusted across the system. Staff felt supported by proactive, responsive leaders who were deeply embedded in programme delivery.
Consistent leadership	Staff felt leaders were reliable when they needed help or support with delivery issues.
Advocating for the system at a regional level	ICB leaders advocated for the system's work to the regional team. As a result,they were more willing to support Gloucestershire in trialling new ways of working and to advocate for these upwards to national teams.

What did this look like in practice?

- Public health played an active role in real-time decision-making when deciding upon outreach strategies, not just strategic planning.
- There were strong pre-existing relationships with the VCSE sector before the pandemic, and during Covid organisations stepped up to support vaccine delivery.
- For example, Inclusion Gloucestershire created accessible flyers and vaccine information, and developed training for vaccination staff to ensure they were more inclusive in their approach to vaccine delivery.

Section 3: Gloucestershire's approach mirrors 'best practice' as seen in the literature

Vaccine uptake is often hindered by several key factors, such as safety concerns, cultural beliefs, mistrust and misinformation, as well as practical access barriers, such as transport and digital exclusion.

Uptake rates improve when delivery involves tailored messaging, data-driven planning, trusted community engagement, clear information, and easy access through flexible options such as walk-ins and mobile clinics.

Gloucestershire ICB ended up doing all of these things. Its success shows that doing 'what works' really does work.

Gloucestershire's approach mirrors 'best practice'

Gloucestershire's approach closely mirrored what we found to be seen as 'best practice' from the literature: hyper-local, based on trust, and focused on improving accessibility and outreach. Even though Gloucestershire designed its approaches without this evidence, it arrived at them through learning from one another and continually adapting their approaches.

Gloucestershire's success shows that doing 'what works' really does work.

What the literature tells us about vaccine uptake

Key barriers to vaccine uptake:

- Concerns about vaccine safety
- Cultural or social beliefs about vaccines
- Mistrust of authorities
- Misinformation and misunderstanding about vaccines
- Access issues

Key ways to increase vaccine uptake:

- Tailored messaging and outreach
- Data-driven planning
- Community-based engagement and trust building
- Clear, transparent vaccine information
- Increased access to vaccinations

Section 4:
Challenges faced, and where improvements could still be made

Running many smaller vaccine sites instead of one or two mass-vaccination centres led to greater set-up, logistical and IT challenges.

Even though outreach efforts improved uptake, some groups still faced language barriers, and held perceptions based on mistrust and misinformation.

Engagement often depended on a few community leaders, making relationships fragile.

Balancing efficiency and safety and avoiding vaccine waste while ensuring access was a constant challenge.

Setting up many smaller sites vs one larger site came with operational and communication challenges

Multiple vaccine centres meant more logistical and operational workload	Gloucestershire had to establish multiple clinics, which meant more set up and logistical challenges. Varying IT systems also made collaborating more challenging.
Vaccines had to be transported between different vaccine sites	Gloucestershire relied on a 'mutual aid' system to share vaccines between clinics, rather than breing able to store all vaccines at one mass vaccination centre. Strict temperature controls and short shelf lives meant they were vulnerable to damage.
Rapidly changing national policies and regulations had to be translated into action in more sites	Translating national guidance into local practice was challenging in Gloucestershire because of having multiple smaller teams, making the frequent updates from NHS England harder to interpret and apply consistently.
Collaborating across PCNs wasn't always easy	The PCN model required GP practices to jointly plan and deliver vaccination services, often for the first time. Although practices in PCNs in Gloucestershire generally collaborated well, in some cases there was initial hesitation or limited buyin at the start of the vaccine roll out, resulting in uneven participation, delivery workload and pressure.

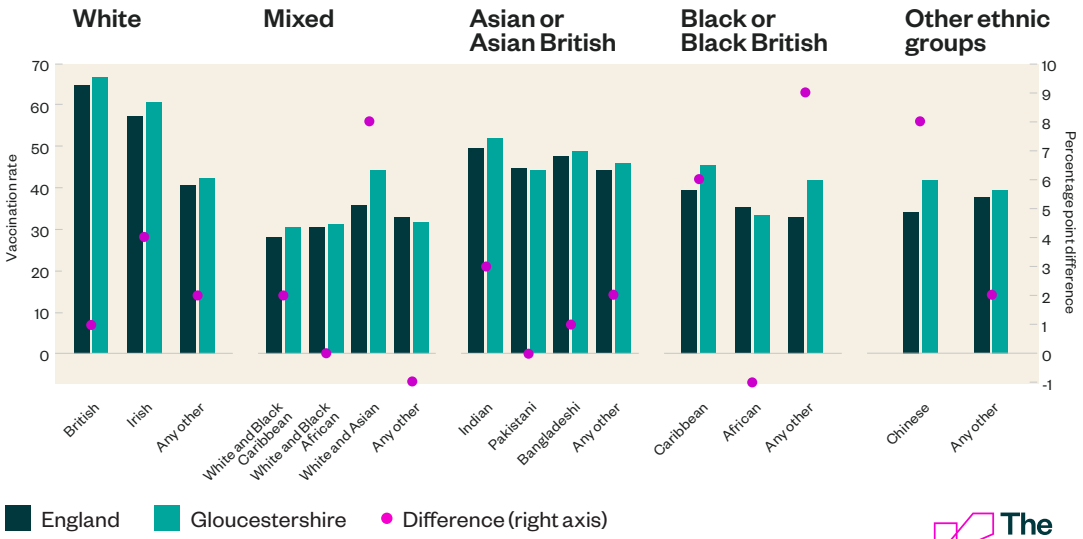
> *'Initially it was tricky... in 2019 PCNs hadn't developed a maturity, they hadn't had the opportunity to build that trust with each other within the network and I think there was still some scepticism and still pride in their work, which made them maybe slightly... resistant to a formula being imposed... But that'sa reflection of the fact that it happened a year after PCNs were formed, not even a year, so they weren't used to working together, whereas we have a much more collective approach to working together now.'*

Despite consistent outreach work, equity gaps in uptake persisted

Gloucestershire's vaccine outreach efforts led to higher uptake rates than the national average and most ethnic groups saw an increase in uptake. However, some equity gaps in uptake persisted, and outreach was not always successful for all groups.

Gloucestershire has higher rates of vaccination than England in most ethnic groups

Second dose vaccination rate for Covid-19 as of September 2022, percentage point difference between Gloucestershire and England



Source: NHS England, NHS England

'It's breaking down those barriers, you know, there's a lot of distrust for the NHS with some of our cultural communities... that's why we've just done a huge [cultural] event, and that's where 200 people attended... we didn't offer anything apart from blood pressure checks, so there were no physical checks or anything, and hopefully that community will now gain trust in us so that when we start calling them in for screening or vaccinations, they will think, right, okay, we know who they are.'

Issues with outreach work included:

Language and accessibility barriers	Although materials were translated and shared through trusted community channels, the actual vaccine services weren't always accessible. For example, someone might receive a flyer in their preferred language, but when they called to book or attended an appointment, no one spoke that language.
Ongoing mistrust and misinformation	Many minority ethnic communities expressed distrust towards mainstream health services, often influenced by things such as religious beliefs, dietary concerns, and historical medical mistreatment, despite work being done to share vaccine education and support those who were mistrustful.
Incomplete data on some groups	At the start of the pandemic, it was difficult to identify and reach people who weren't already connected to the health system. Gloucestershire ICB is now better at targeting these groups, but this was a challenge early on.
Lack of established relationships	Building trust takes time. At the beginning of the pandemic, the ICB didn't have strong direct relationships with many communities. During the pandemic, they relied on community leaders and VCSE organisations to help them reach people. While this approach supported immediate outreach, it meant their engagement was indirect and concentrated through a few conduits. If future health campaigns or emergencies occur, this reliance may create vulnerability, as the system depends on those few individuals rather than having broad, distributed relationships that make it more resilient and less reliant on single points of contact.

The drive to ensure staff had enough vaccines to vaccinate people proactively sometimes conflicted with eligibility rules and clinical caution

- Even though staff worked hard to manage stock and avoid waste, having lots of smaller local centres instead of big mass-vaccination sites meant that keeping track of doses was harder.
- Gloucestershire's approach was successful in getting vaccines to people quickly and reliably. Its approach focused on making sure no one was turned away – it tried to make sure that sufficient vaccines were always available at each site. But this approach also presented challenges and may have led to some vaccine wastage.
- Clinical caution also played a role. Practitioners were careful not to use doses if there was any doubt about their stability, which meant that extra doses sometimes went unused, especially if they were damaged or stored incorrectly during transport between sites, where issues such as temperature control or physical damage could make the vaccines unusable.

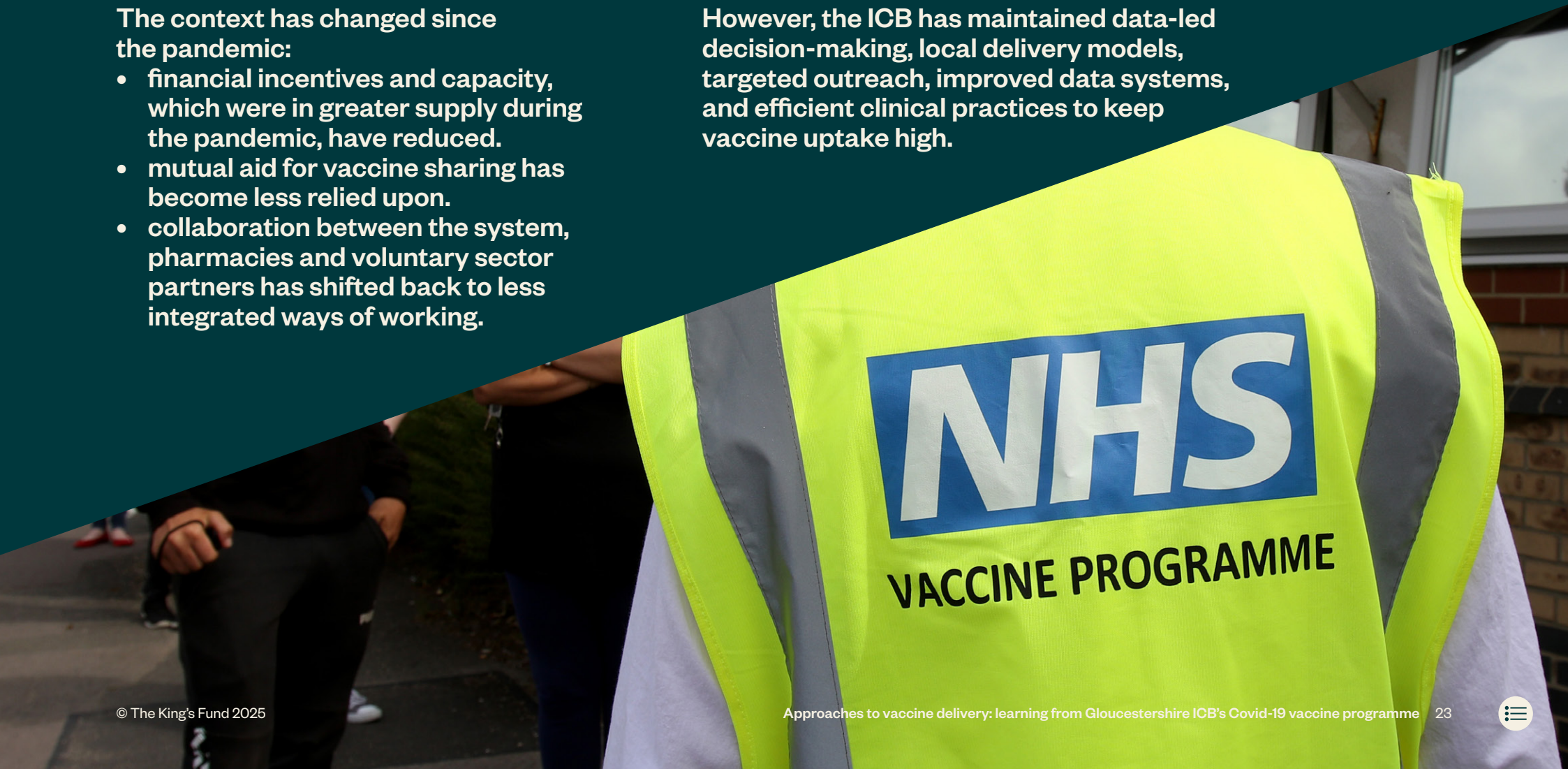
These challenges underscore the tensions between equity, efficiency and safety in vaccine delivery. Ensuring everyone is reached may come at a cost. Operational flexibility helps ensure no one is turned away, but it can increase expense, and sometimes waste. Managing these trade-offs is complex but important to consider when designing vaccine delivery.

Section 5: What's applicable outside of a pandemic context?

The context has changed since the pandemic:

- financial incentives and capacity, which were in greater supply during the pandemic, have reduced.
- mutual aid for vaccine sharing has become less relied upon.
- collaboration between the system, pharmacies and voluntary sector partners has shifted back to less integrated ways of working.

However, the ICB has maintained data-led decision-making, local delivery models, targeted outreach, improved data systems, and efficient clinical practices to keep vaccine uptake high.



Gloucestershire has managed to maintain high Covid-19 vaccine uptake rates

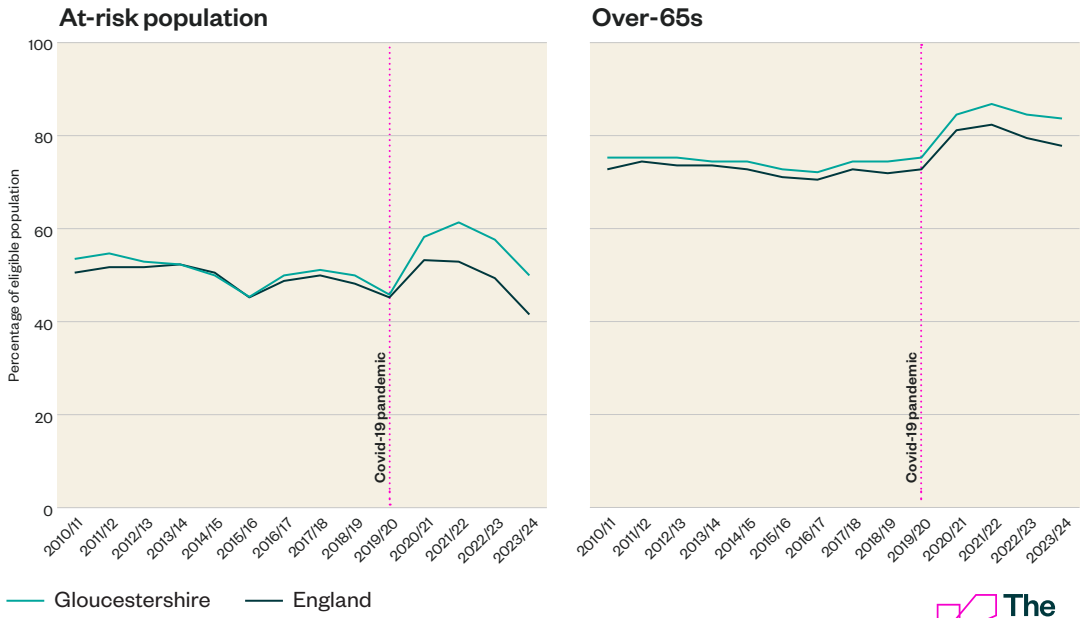
Gloucestershire's experience offers valuable lessons for future pandemics. But Gloucestershire didn't just do well during the pandemic. It has managed to maintain higher Covid-19 vaccine uptake rates compared with England's average.

We can also see that since the pandemic, flu vaccination rates have significantly improved and are also significantly higher than the England average (see graph opposite).

What elements of Gloucestershire's approach have been maintained and what has been dropped as work has returned to normal after the pandemic?

From 2019/20, there was a noticeable divergence in Gloucestershire's flu vaccination rate compared with England

Flu vaccination rates for the eligible at-risk population and over-65s in England



Source: OHID

What has been maintained and what has been dropped since the pandemic?

What has been maintained?

Data-led practices	Since the pandemic, Gloucestershire has continued regular meetings focused on targeted outreach, and expanded its use of data to support the uptake of all vaccines.
Knowledge sharing and iterative vaccine programme improvements	Regular meetings with the vaccine programme team have continued since the pandemic, in which approaches to the vaccine programme are discussed and continually improved. Senior Responsible Officers (SROs) across the region have also maintained regular connection, sharing learnings between areas.
Local delivery model	Soon after the end of the initial Covid-19 vaccine programme, some areas shifted from the PCN model back to practice-based delivery, where approaches could be delivered even more locally. However, in some cases centralised ordering for Covid-19 vaccines still exists.
Focused community outreach	The focused outreach approaches have continued since the pandemic. Visits to people who are unable to leave the house have carried on, as have links with community groups to help identify and support those needing extra help. Since the pandemic, understanding of local populations has improved, so that support can be targeted to groups that need more attention.

Use of detailed data systems	During Covid-19, improvements were made to the way that vaccine uptake was tracked, eligible populations were identified (such as people who are immunocompromised), and coding and recall systems were used. These improvements have continued and been applied to the tracking of other vaccine campaigns.

What has reduced or not been maintained?

Reduced capacity and incentives	Since the pandemic, vaccine delivery has returned to being one of many competing priorities. Financial incentives have reduced, impacting motivation and resourcing, and there is increased competition for vaccinations and income between pharmacy and GP.
Reliance on mutual aid	Mutual aid, where Covid-19 vaccine stock can be shared between practices, was a key enabler to the flexible vaccine programme. However, as it is not applicable to non-Covid-19 vaccines, this has reduced how flexibly vaccines can be delivered, particularly because flu and Covid-19 vaccines are often delivered together.
Collaboration between the system, pharmacies and VCSE organisations	In the initial phases of the pandemic community pharmacies were less central to the vaccine programme, but now, the number of pharmacies delivering Covid-19 vaccines in Gloucestershire has increased, and there is greater reliance on pharmacies for delivery of vaccines. Different commissioning arrangements mean close collaboration between pharmacy and general practice is limited. Conversely, although the VCSE sector was relied upon heavily during the pandemic, and there was a sense of genuine partnership working with the health system, it has been suggested that engagement has largely returned to pre-pandemic ways of working, with lower levels of collaboration and more transactional funder-applicant style relationships. These shifts suggest that delivery is now more atomised and less collaborative.

Section 6: Looking ahead – lessons for the future

Lessons for strengthening vaccine campaigns:

- Accessibility and convenience are key determinants of uptake. Vaccines should be offered in familiar, local venues to make getting vaccinated easy.
- Targeted and tailored approaches for hesitant or underserved groups are essential.
- Investing in trust-building to build long-term relationships with communities outside crisis periods is crucial.
- Strong working relationships across the system and with partners are key to efficient and flexible delivery.

Lessons for future pandemics:

- Set up local sites and mobile clinics instead of big mass-vaccination centres to increase accessibility and familiarity.
- Give local teams control so that they can decide what works best for their communities and use the funding quickly.
- Share learning quickly through regular check-ins.
- Build strong relationships early with health teams, community groups, and partners to support collaboration.
- Work with trusted local voices to build confidence and fight misunderstanding and misinformation.

Vaccines are now being delivered against a backdrop of changing pressures and contextual factors

Vaccines are being delivered against a backdrop of changing pressures and contextual factors which may shape what vaccination programmes and delivery look like in the future.

- ICBs clustering and facing staff changes might impact the trusted relationships across the system, which have been so vital to Gloucestershire's success.
- The shift from analogue to digital tools may change how vaccines are tracked, targeted and delivered.
- An increasing focus on moving care into the community and neighbourhood health may mean there is greater reliance on local health teams in care delivery.
- General downward trends in vaccine rates and rising vaccine hesitancy in the UK mean that building trust and being politically sensitive will remain critical.
- With NHS financial pressure, systems will need to balance efficiency, equity and operational effectiveness.
- Emerging vaccine-related innovations (eg, personalised vaccination approaches) may impact future delivery.

NHS structural and commissioning changes, neighbourhood health and financial pressures all impact future vaccine delivery

Lesson 1
Neighbourhood approaches work best

Low vaccine uptake rates often stem from practical barriers, like limited appointment availability or faraway vaccine centres, rather than vaccine reluctance or hesitancy. We found that making vaccines accessible and convenient are key drivers of uptake.

- Increase accessibility by providing walk-in clinics, extended appointment times and local clinics.
- Hyper-local neighbourhood approaches work best.
- National teams need to trust local knowledge.
- Deliver vaccines in convenient venues where people already go (eg, schools or supermarkets).
- Co-ordinate with community pharmacies to avoid duplication.

Lesson 2
Outreach needs to accompany general vaccine uptake

Improving accessibility and convenience while also using targeted and tailored outreach approaches is important for increasing uptake.

- Go where people are – pop-up clinics, walk-ins, jab vans and home visits all help to reach people who may not have wanted, or been able, to get vaccinated before.
- Use data strategically and routinely to identify and address inequalities in vaccination rates.
- Support staff to work with different communities and handle vaccine hesitancy and culturally sensitive conversations (eg, through the Jitsuvax approach) and provide training on reasonable adjustments and home visit protocols.
- Consider the balance between efficiency and equity when targeting outreach.

Lesson 3
Continually work to strengthen connections and build trust with communities

Successful vaccine outreach hinges on trust between health systems and the communities they serve.

Gloucestershire's work with trusted community leaders highlighted how much difference it makes when communities have trust in those delivering vaccines.

- Building trust takes time so having dedicated community-building capacity and time within the ICB is important.
- Building links with communities without an agenda (outside of a pandemic or vaccination campaigns) builds familiarity, trust and confidence.
- Instead of relying on one or two community leaders, ICBs and providers should build multiple direct links with community groups so that relationships survive staff turnover.
- Sustain outreach funding: short-term funding undermines long-term trust and engagement.

Lesson 4
Strengthen relationships and leadership across the system

Relationships between staff within a system also need to be strong.

Our evaluation highlighted how trust between teams creates the conditions for smoother collaboration and more responsive and flexible health care solutions.

- Focus on strengthening trusting relationships between staff to enhance efficient and co-ordinated service delivery.
- Consider ways to maintain the collaborative approach with VCSE organisations developed during the pandemic, rather than reverting fully to a funding-recipient model.

Evaluation summary

For delivering high vaccine uptake rates, this evaluation shows that:

Neighbourhood delivery works	Bringing vaccines closer to where people live and feel comfortable boosts uptake.
Data and outreach go hand-in-hand	Use real-time data to identify gaps and tailor outreach to specific communities.
Trust takes time to build but is vital	Invest in long-term relationships with communities and across the system, to enable rapid, co-ordinated responses.
Sustaining what works supports continued high uptake rates	Gloucestershire maintained high uptake post-pandemic by embedding successful practices into business as usual.

Gloucestershire's experience reinforces a clear message: sustained improvements in vaccine uptake depend on trusted relationships, local delivery models, and data-informed outreach. Equity, trust and local flexibility aren't just pandemic strategies. They're core principles for delivering fair and effective vaccination programmes.

Appendix

- Learning for future pandemics
- Reading list

Learning for future pandemics

Gloucestershire's experience offers insight into how systems can respond to future pandemics specifically.

This evaluation highlights what has worked well in Gloucestershire to improve vaccine uptake. While many of the lessons learnt can be applied to routine vaccination delivery, some aspects of its approach were tailored specifically to the unique challenges of a pandemic. Importantly, the evaluation also offers valuable insights into how systems can respond effectively in the event of future public health emergencies.

Gloucestershire's success in achieving high Covid-19 vaccine uptake was achieved by tackling common barriers such as mistrust, access issues, and misinformation through a hyper-local and agile model, strong relationships and trusted community partnerships, and data-driven outreach.

Gloucestershire succeeded by doing 'what works': delivering vaccines locally through trusted PCNs, using real-time data to guide outreach, building strong relationships across the system, and fostering a culture of flexibility, trust and continual learning.

Multiple vaccination centres	Setting up multiple vaccination centres, as Gloucestershire did, rather than fewer mass-vaccination centres, can be practically challenging. However, this approach was more flexible and adaptable to local needs and contributed to higher vaccination rates across the county. Practical challenges can be eased through enablers such as local redistribution of vaccines, which help streamline delivery.
Funding	Rapid mobilisation during a pandemic relies on fast, flexible funding. Local PCN autonomy across Gloucestershire meant that services could use the financial resources and staff capacity in ways they felt would meet the needs of their local populations and helped ensure vaccines were available to everyone coming for vaccination.
Effective knowledge sharing to support improvement	Using emergency governance (eg, weekly meetings) to share learnings as well as meeting with teams in other areas across the region can help vaccine teams to problem solve and refine their approaches quickly, maximising uptake.
Relationships are key	Strong, trusted relationships between staff and organisations in the system are crucial for fast and effective responses. In Gloucestershire, trust was fostered through reliable and accessible leadership, a balance of local autonomy with central co-ordination and support, and active advocacy across ICB, regional, and national levels. Additionally, clear guidance around vaccine safety, indemnity, population eligibility, and regulatory issues can help to smooth out delivery and make the process less daunting for staff.
Collaboration	Cross-sector collaboration must begin early and be sustained throughout the programme. In Gloucestershire, incorporating perspectives from public health and VCSE organisations helped shape delivery strategies and tailor approaches to community needs.

Community engagement	Ongoing, consistent engagement with local communities is key to building trust. Ideally, this work should begin outside of a pandemic context. However, during a crisis, engaging trusted community champions can significantly improve uptake. Relationships with community leaders, services, and VCSE organisations can support inclusive messaging, address concerns, and strengthen trust across diverse groups.
Access to vaccinations	Ensuring early and equitable access to vaccinations is critical. Gloucestershire's use of pop-up clinics and data-driven targeting helped reach areas with lower uptake. Addressing known barriers, such as digital exclusion and language differences, from the outset is important to maximise early engagement and coverage and increase vaccine uptake as early as possible.

Reading list

What the literature tells us about vaccine uptake.

There are several common barriers that prevent people from getting vaccinated:

- **Safety concerns:** Worries about side effects and long-term health impacts.
- **Cultural and social beliefs:** Norms and traditions that discourage vaccination in certain communities.
- **Mistrust:** Lack of trust in government, pharmaceutical companies and health care systems.
- **Misinformation or misunderstanding:** The spread of false information and conspiracy theories which are often amplified online.
- **Access issues:** Practical barriers such as transport, digital exclusion and legal status, which especially impact migrants and underserved groups.

The evidence also points to the best strategies and approaches for increasing vaccine uptake:

- **Tailored messaging and outreach approaches:** Using personalised communications that reflect cultural contexts and address specific concerns.
- **Data-driven planning:** Using population health data to identify gaps and adapt strategies in real time.
- **Community-based engagement:** Working with community champions or trusted local leaders and organisations to build trust and promote vaccination within different communities.
- **Clear, transparent information:** Sharing accurate, consistent messages from trusted sources to counteract misinformation and build trust, and using social media to disseminate accurate information and engage with the community.
- **Improving access to vaccines:** Offering walk-in clinics, mobile units, home visits and flexible appointment options to reduce logistical barriers.

The King's Fund

Bold thinking for better health

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